

Claims

1. An elevator system serving a plurality of floors (12) in a building, comprising:
at least one hall device on each of said floors; and
a controller (18);
characterized by:

at least one piconet module (15, 16) on each of said floors, at least one said piconet module interconnected with at least one said hall device on the corresponding floor to transmit and receive elevator system operation-related control signals, said defined piconet modules forming piconets with others of said defined piconet modules thereby serving as a floor-to-floor communication system, in which transmissions by any one of said defined piconet modules may be received by others of said defined piconet modules and retransmitted thereby; and

a defined piconet module (19) interconnected with said controller, said controller thereby communicating, through said defined piconet module interconnected therewith, with any other of said piconet modules, either directly or through still another one or more of said defined piconet modules, whereby said elevator system operation-related control signals will be communicated between said defined piconet modules interconnected with said at least one hall device on any of said floors and said defined piconet module interconnected with said controller.

2. A system according to claim 1, further comprising:

a personal digital assistant (PDA) having a defined piconet module (58) and containing maintenance-related programs enabling a user thereof to extract information about the elevator system from the elevator system, to issue executable commands to the elevator system, and to reconfigure the elevator system.

3. A system according to claim 1, further comprising:

at least one remote control device having a defined piconet module (54) and configured to communicate requests for elevator service.

4. A system according to claim 3 wherein said remote control device is configured to receive acknowledgments of accepted requests for service.

5. A system according to claim 1 further comprising:
a plurality of safety devices, each interconnected with a related defined piconet module (43, 44, 47, 48-50), said safety devices and related defined piconet modules comprising a safety chain, said related defined piconet modules forming piconets with others of said defined piconet modules and serving with said others of said defined piconet modules as said floor-to-floor communication system.

6. A system according to claim 1 further comprising:
a plurality of hoistway doors, at least one on each floor, a door lock switch associated with each of said doors, a defined piconet module (50) interconnected with each said door lock switch, forming piconets with others of said defined piconet modules and serving with said others of said defined piconet modules as said floor-to-floor communication system.

7. A system according to claim 1 further comprising:
an elevator car (31) having a car operating panel (32) with at least one defined piconet module (40) interconnected therewith, forming piconets with others of said defined piconet modules and serving with said others of said defined piconet modules as said floor-to-floor communication system.

8. A system according to claim 1 further comprising:
an elevator car (31) having at least one car door and a defined piconet module (43) interconnected with at least one said car door, forming piconets with others of said defined piconet modules and serving with said others of said defined piconet modules as said floor-to-floor communication system.

9. A system according to claim 1 wherein:
there is one piconet module (15, 16, 50) on each of said floors, each interconnected with one or more hall call buttons and a hoistway door lock switch on said floor.

10. A system according to claim 9 further comprising:
a gong; and wherein
said piconet module (15, 16, 50) is interconnected with said gong.

11. A system according to claim 9 further comprising:
one or more lanterns; and wherein
said one or more lanterns are interconnected with said piconet module (15, 16, 50).